

## Patient Safety Indicator 08 (PSI 08) In Hospital Fall with Hip Fracture Rate

July 2022

Hospital-Level Indicator

Type of Score: Rate

### Prepared by:

Agency for Healthcare Research and Quality

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[qualityindicators.ahrq.gov](http://qualityindicators.ahrq.gov)

### DESCRIPTION

In-hospital fall with hip fracture (secondary diagnosis) per 1,000 discharges for patients ages 18 years and older. Excludes discharges with a principal diagnosis of hip fracture; with a secondary diagnosis of hip fracture present on admission; or with a diagnosis of joint prosthesis-associated fracture; and obstetric discharges.

[NOTE: The software provides the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report events per 1,000 hospital discharges.]

### NUMERATOR

Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-10-CM diagnosis code for hip fracture (*HIPFXID\**).

### DENOMINATOR

Surgical or medical discharges for patients ages 18 years and older. Surgical (*Appendix E: SURGI2R*) and medical (*Appendix C: MEDIC2R*) discharges are defined by specific MS-DRG codes.

[Appendix C - Medical Discharge MS-DRGs](#)

[Appendix E - Surgical Discharge MS-DRGs](#)

## DENOMINATOR EXCLUSIONS

Exclude discharges:

- with a principal ICD-10-CM diagnosis code (or secondary diagnosis present on admission) for hip fracture (**HIPFXID\***)
- with any listed ICD-10-CM diagnosis code for joint prosthesis-associated fracture (**PROSFXID\***)
- MDC 14 (pregnancy, childbirth, and puerperium)
- MDC 15 (newborns and other neonates with conditions originating in perinatal period)
- with an ungroupable DRG (DRG=999)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)
- with missing MDC (MDC=missing) when the user indicates that MDC is provided

\* See below for code list

***Joint prosthesis associated fracture diagnosis codes: (PROSFXID)***

M96661	Fracture of femur following insertion of orthopedic implant, joint prosthesis, or bone plate, right leg	M9701XA	Periprosthetic fracture around internal prosthetic right hip joint, initial encounter
M96662	Fracture of femur following insertion of orthopedic implant, joint prosthesis, or bone plate, left leg	M9702XA	Periprosthetic fracture around internal prosthetic left hip joint, initial encounter
M96669	Fracture of femur following insertion of orthopedic implant, joint prosthesis, or bone plate, unspecified leg		

***Hip fracture diagnosis codes for PSI 08: (HIPFXID)***

M80051A	Age-Related osteoporosis with current pathological fracture, right femur, initial encounter for fracture	S72101C	Unspecified trochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
M80052A	Age-Related osteoporosis with current pathological fracture, left femur, initial encounter for fracture	S72102A	Unspecified trochanteric fracture of left femur, initial encounter for closed fracture
M80059A	Age-Related osteoporosis with current pathological fracture, unspecified femur, initial encounter for fracture	S72102B	Unspecified trochanteric fracture of left femur, initial encounter for open fracture type I or II
M80851A	Other osteoporosis with current pathological fracture, right femur, initial encounter for fracture	S72102C	Unspecified trochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
M80852A	Other osteoporosis with current pathological fracture, left femur, initial encounter for fracture	S72109A	Unspecified trochanteric fracture of unspecified femur, initial encounter for closed fracture
M80859A	Other osteoporosis with current pathological fracture, unspecified femur, initial encounter for fracture	S72109B	Unspecified trochanteric fracture of unspecified femur, initial encounter for open fracture type I or II
S72001A	Fracture of unspecified part of neck of right femur, initial encounter for closed fracture	S72109C	Unspecified trochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72001B	Fracture of unspecified part of neck of right femur, initial encounter for open fracture type I or II	S72111A	Displaced fracture of greater trochanter of right femur, initial encounter for closed fracture
S72001C	Fracture of unspecified part of neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72111B	Displaced fracture of greater trochanter of right femur, initial encounter for open fracture type I or II
S72002A	Fracture of unspecified part of neck of left femur, initial encounter for closed fracture	S72111C	Displaced fracture of greater trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72002B	Fracture of unspecified part of neck of left femur, initial encounter for open fracture type I or II	S72112A	Displaced fracture of greater trochanter of left femur, initial encounter for closed fracture
S72002C	Fracture of unspecified part of neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72112B	Displaced fracture of greater trochanter of left femur, initial encounter for open fracture type I or II
S72009A	Fracture of unspecified part of neck of unspecified femur, initial encounter for closed fracture	S72112C	Displaced fracture of greater trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC

S72009B	Fracture of unspecified part of neck of unspecified femur, initial encounter for open fracture type I or II	S72113A	Displaced fracture of greater trochanter of unspecified femur, initial encounter for closed fracture
S72009C	Fracture of unspecified part of neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72113B	Displaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type I or II
S72011A	Unspecified intracapsular fracture of right femur, initial encounter for closed fracture	S72113C	Displaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72011B	Unspecified intracapsular fracture of right femur, initial encounter for open fracture type I or II	S72114A	Nondisplaced fracture of greater trochanter of right femur, initial encounter for closed fracture
S72011C	Unspecified intracapsular fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72114B	Nondisplaced fracture of greater trochanter of right femur, initial encounter for open fracture type I or II
S72012A	Unspecified intracapsular fracture of left femur, initial encounter for closed fracture	S72114C	Nondisplaced fracture of greater trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72012B	Unspecified intracapsular fracture of left femur, initial encounter for open fracture type I or II	S72115A	Nondisplaced fracture of greater trochanter of left femur, initial encounter for closed fracture
S72012C	Unspecified intracapsular fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72115B	Nondisplaced fracture of greater trochanter of left femur, initial encounter for open fracture type I or II
S72019A	Unspecified intracapsular fracture of unspecified femur, initial encounter for closed fracture	S72115C	Nondisplaced fracture of greater trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72019B	Unspecified intracapsular fracture of unspecified femur, initial encounter for open fracture type I or II	S72116A	Nondisplaced fracture of greater trochanter of unspecified femur, initial encounter for closed fracture
S72019C	Unspecified intracapsular fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72116B	Nondisplaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type I or II
S72031A	Displaced midcervical fracture of right femur, initial encounter for closed fracture	S72116C	Nondisplaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72031B	Displaced midcervical fracture of right femur, initial encounter for open fracture type I or II	S72121A	Displaced fracture of lesser trochanter of right femur, initial encounter for closed fracture

S72031C	Displaced midcervical fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72121B	Displaced fracture of lesser trochanter of right femur, initial encounter for open fracture type I or II
S72032A	Displaced midcervical fracture of left femur, initial encounter for closed fracture	S72121C	Displaced fracture of lesser trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72032B	Displaced midcervical fracture of left femur, initial encounter for open fracture type I or II	S72122A	Displaced fracture of lesser trochanter of left femur, initial encounter for closed fracture
S72032C	Displaced midcervical fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72122B	Displaced fracture of lesser trochanter of left femur, initial encounter for open fracture type I or II
S72033A	Displaced midcervical fracture of unspecified femur, initial encounter for closed fracture	S72122C	Displaced fracture of lesser trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72033B	Displaced midcervical fracture of unspecified femur, initial encounter for open fracture type I or II	S72123A	Displaced fracture of lesser trochanter of unspecified femur, initial encounter for closed fracture
S72033C	Displaced midcervical fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72123B	Displaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type I or II
S72034A	Nondisplaced midcervical fracture of right femur, initial encounter for closed fracture	S72123C	Displaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72034B	Nondisplaced midcervical fracture of right femur, initial encounter for open fracture type I or II	S72124A	Nondisplaced fracture of lesser trochanter of right femur, initial encounter for closed fracture
S72034C	Nondisplaced midcervical fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72124B	Nondisplaced fracture of lesser trochanter of right femur, initial encounter for open fracture type I or II
S72035A	Nondisplaced midcervical fracture of left femur, initial encounter for closed fracture	S72124C	Nondisplaced fracture of lesser trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72035B	Nondisplaced midcervical fracture of left femur, initial encounter for open fracture type I or II	S72125A	Nondisplaced fracture of lesser trochanter of left femur, initial encounter for closed fracture

S72035C	Nondisplaced midcervical fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72125B	Nondisplaced fracture of lesser trochanter of left femur, initial encounter for open fracture type I or II
S72036A	Nondisplaced midcervical fracture of unspecified femur, initial encounter for closed fracture	S72125C	Nondisplaced fracture of lesser trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72036B	Nondisplaced midcervical fracture of unspecified femur, initial encounter for open fracture type I or II	S72126A	Nondisplaced fracture of lesser trochanter of unspecified femur, initial encounter for closed fracture
S72036C	Nondisplaced midcervical fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72126B	Nondisplaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type I or II
S72041A	Displaced fracture of base of neck of right femur, initial encounter for closed fracture	S72126C	Nondisplaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72041B	Displaced fracture of base of neck of right femur, initial encounter for open fracture type I or II	S72131A	Displaced apophyseal fracture of right femur, initial encounter for closed fracture
S72041C	Displaced fracture of base of neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72131B	Displaced apophyseal fracture of right femur, initial encounter for open fracture type I or II
S72042A	Displaced fracture of base of neck of left femur, initial encounter for closed fracture	S72131C	Displaced apophyseal fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72042B	Displaced fracture of base of neck of left femur, initial encounter for open fracture type I or II	S72132A	Displaced apophyseal fracture of left femur, initial encounter for closed fracture
S72042C	Displaced fracture of base of neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72132B	Displaced apophyseal fracture of left femur, initial encounter for open fracture type I or II
S72043A	Displaced fracture of base of neck of unspecified femur, initial encounter for closed fracture	S72132C	Displaced apophyseal fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72043B	Displaced fracture of base of neck of unspecified femur, initial encounter for open fracture type I or II	S72133A	Displaced apophyseal fracture of unspecified femur, initial encounter for closed fracture
S72043C	Displaced fracture of base of neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72133B	Displaced apophyseal fracture of unspecified femur, initial encounter for open fracture type I or II

S72044A	Nondisplaced fracture of base of neck of right femur, initial encounter for closed fracture	S72133C	Displaced apophyseal fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72044B	Nondisplaced fracture of base of neck of right femur, initial encounter for open fracture type I or II	S72134A	Nondisplaced apophyseal fracture of right femur, initial encounter for closed fracture
S72044C	Nondisplaced fracture of base of neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72134B	Nondisplaced apophyseal fracture of right femur, initial encounter for open fracture type I or II
S72045A	Nondisplaced fracture of base of neck of left femur, initial encounter for closed fracture	S72134C	Nondisplaced apophyseal fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72045B	Nondisplaced fracture of base of neck of left femur, initial encounter for open fracture type I or II	S72135A	Nondisplaced apophyseal fracture of left femur, initial encounter for closed fracture
S72045C	Nondisplaced fracture of base of neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72135B	Nondisplaced apophyseal fracture of left femur, initial encounter for open fracture type I or II
S72046A	Nondisplaced fracture of base of neck of unspecified femur, initial encounter for closed fracture	S72135C	Nondisplaced apophyseal fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72046B	Nondisplaced fracture of base of neck of unspecified femur, initial encounter for open fracture type I or II	S72136A	Nondisplaced apophyseal fracture of unspecified femur, initial encounter for closed fracture
S72046C	Nondisplaced fracture of base of neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72136B	Nondisplaced apophyseal fracture of unspecified femur, initial encounter for open fracture type I or II
S72051A	Unspecified fracture of head of right femur, initial encounter for closed fracture	S72136C	Nondisplaced apophyseal fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72051B	Unspecified fracture of head of right femur, initial encounter for open fracture type I or II	S72141A	Displaced intertrochanteric fracture of right femur, initial encounter for closed fracture
S72051C	Unspecified fracture of head of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72141B	Displaced intertrochanteric fracture of right femur, initial encounter for open fracture type I or II
S72052A	Unspecified fracture of head of left femur, initial encounter for closed fracture	S72141C	Displaced intertrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC



S72052B	Unspecified fracture of head of left femur, initial encounter for open fracture type I or II	S72142A	Displaced intertrochanteric fracture of left femur, initial encounter for closed fracture
S72052C	Unspecified fracture of head of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72142B	Displaced intertrochanteric fracture of left femur, initial encounter for open fracture type I or II
S72059A	Unspecified fracture of head of unspecified femur, initial encounter for closed fracture	S72142C	Displaced intertrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72059B	Unspecified fracture of head of unspecified femur, initial encounter for open fracture type I or II	S72143A	Displaced intertrochanteric fracture of unspecified femur, initial encounter for closed fracture
S72059C	Unspecified fracture of head of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72143B	Displaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II
S72061A	Displaced articular fracture of head of right femur, initial encounter for closed fracture	S72143C	Displaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72061B	Displaced articular fracture of head of right femur, initial encounter for open fracture type I or II	S72144A	Nondisplaced intertrochanteric fracture of right femur, initial encounter for closed fracture
S72061C	Displaced articular fracture of head of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72144B	Nondisplaced intertrochanteric fracture of right femur, initial encounter for open fracture type I or II
S72062A	Displaced articular fracture of head of left femur, initial encounter for closed fracture	S72144C	Nondisplaced intertrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72062B	Displaced articular fracture of head of left femur, initial encounter for open fracture type I or II	S72145A	Nondisplaced intertrochanteric fracture of left femur, initial encounter for closed fracture
S72062C	Displaced articular fracture of head of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72145B	Nondisplaced intertrochanteric fracture of left femur, initial encounter for open fracture type I or II
S72063A	Displaced articular fracture of head of unspecified femur, initial encounter for closed fracture	S72145C	Nondisplaced intertrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72063B	Displaced articular fracture of head of unspecified femur, initial encounter for open fracture type I or II	S72146A	Nondisplaced intertrochanteric fracture of unspecified femur, initial encounter for closed fracture

S72063C	Displaced articular fracture of head of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S72146B	Nondisplaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II
S72064A	Nondisplaced articular fracture of head of right femur, initial encounter for closed fracture	S72146C	Nondisplaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72064B	Nondisplaced articular fracture of head of right femur, initial encounter for open fracture type I or II	S7221XA	Displaced subtrochanteric fracture of right femur, initial encounter for closed fracture
S72064C	Nondisplaced articular fracture of head of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S7221XB	Displaced subtrochanteric fracture of right femur, initial encounter for open fracture type I or II
S72065A	Nondisplaced articular fracture of head of left femur, initial encounter for closed fracture	S7221XC	Displaced subtrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72065B	Nondisplaced articular fracture of head of left femur, initial encounter for open fracture type I or II	S7222XA	Displaced subtrochanteric fracture of left femur, initial encounter for closed fracture
S72065C	Nondisplaced articular fracture of head of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S7222XB	Displaced subtrochanteric fracture of left femur, initial encounter for open fracture type I or II
S72066A	Nondisplaced articular fracture of head of unspecified femur, initial encounter for closed fracture	S7222XC	Displaced subtrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72066B	Nondisplaced articular fracture of head of unspecified femur, initial encounter for open fracture type I or II	S7223XA	Displaced subtrochanteric fracture of unspecified femur, initial encounter for closed fracture
S72066C	Nondisplaced articular fracture of head of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S7223XB	Displaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II
S72091A	Other fracture of head and neck of right femur, initial encounter for closed fracture	S7223XC	Displaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72091B	Other fracture of head and neck of right femur, initial encounter for open fracture type I or II	S7224XA	Nondisplaced subtrochanteric fracture of right femur, initial encounter for closed fracture
S72091C	Other fracture of head and neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S7224XB	Nondisplaced subtrochanteric fracture of right femur, initial encounter for open fracture type I or II

S72092A	Other fracture of head and neck of left femur, initial encounter for closed fracture	S7224XC	Nondisplaced subtrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72092B	Other fracture of head and neck of left femur, initial encounter for open fracture type I or II	S7225XA	Nondisplaced subtrochanteric fracture of left femur, initial encounter for closed fracture
S72092C	Other fracture of head and neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S7225XB	Nondisplaced subtrochanteric fracture of left femur, initial encounter for open fracture type I or II
S72099A	Other fracture of head and neck of unspecified femur, initial encounter for closed fracture	S7225XC	Nondisplaced subtrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72099B	Other fracture of head and neck of unspecified femur, initial encounter for open fracture type I or II	S7226XA	Nondisplaced subtrochanteric fracture of unspecified femur, initial encounter for closed fracture
S72099C	Other fracture of head and neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	S7226XB	Nondisplaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II
S72101A	Unspecified trochanteric fracture of right femur, initial encounter for closed fracture	S7226XC	Nondisplaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC
S72101B	Unspecified trochanteric fracture of right femur, initial encounter for open fracture type I or II		